

Attorney docket no. 071949-4102  
Patent

### IN THE CLAIMS

For the convenience of the Examiner, the pending claims are reproduced below. Please amend claims 27, 96, 97 and 105, and add new claims 109 to 128.

*Sub 317*  
~~27.~~ (Presently amended) An apparatus for measuring progress and time of completion of an assay for an analyte, comprising:

(a) an assay device comprising:

(i) a reaction chamber comprising an optically detectable label, and

(ii) at least one diagnostic lane comprising at least one assay zone configured to bind said analyte and at least one timing zone separate from the assay zone, wherein said diagnostic lane is in fluid communication with said reaction chamber, and wherein, when fluid is added to said reaction chamber, said detectable label flows with said fluid to said at least one diagnostic lane;

(b) an optical component for detecting an optical signal generated from said label in said at least one [said] timing zone [of said diagnostic lane] and generating an electronic signal in response; and

*61*  
(c) a signal processor [for] configured to receive said electronic signal and to determine said progress and time of completion of said assay for said analyte in said assay device from at least one parameter selected from the group consisting of a rate of change of the amount of said electronic signal and an amount of said electronic signal.

~~28.~~ (Previously presented) A kit for measuring progress and time of completion of an assay for an analyte, comprising:

(a) at least one set of instructions for measuring said progress and time of completion; and

(b) an apparatus according to claim 27.

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*Sub 317*  
~~93.~~ (Previously presented) The apparatus of claim 27, wherein said label is selected from the group of molecules consisting of dye, fluorescence emitting dye, chemiluminescence emitting dye, infrared emitting dye, colloidal sol, molecule that generates an electrical and/or magnetic signal, and enzyme.

~~94.~~ (Previously presented) The apparatus of claim 27, wherein the assay device is an immunoassay device.

~~95.~~ (Previously presented) The apparatus of claim 27, wherein the optical component is a fluorometer.

~~96.~~ (Presently amended) The apparatus of claim 27, wherein the reaction chamber and said at least one diagnostic lane are each within a capillary space.

~~97.~~ (Presently amended) The apparatus of claim 27, wherein the label is attached to a first member of a binding pair that binds to a second member of the binding pair that is bound to said at least one [discrete] timing zone of said at least one diagnostic lane.

~~98.~~ (Previously presented) The apparatus of claim 97, wherein one or both of said first and second members of the binding pair is an antibody.

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~~99.~~ (Previously presented) The apparatus of claim 27, wherein said signal processor determines the progress and time of completion of said assay in said device from the rate of change of the amount of signal.

~~100.~~ (Previously presented) The apparatus of claim 27, wherein said signal processor determines the progress and time of completion of said assay in said device from the absolute amount of signal.

~~101.~~ (Previously presented) The kit of claim 28, wherein said label is selected from the group of molecules consisting of dye, fluorescence emitting dye, chemiluminescence emitting dye, infrared emitting dye, colloidal sol, molecule that generates an electrical and/or magnetic signal, and enzyme.

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~~102. (Previously presented) The kit of claim 28, wherein the assay device is an immunoassay device.~~

~~103. (Previously added) The kit of claim 28, wherein the optical component is a fluorometer.~~

~~104. (Previously presented) The kit of claim 28, wherein the reaction chamber and diagnostic lane are each within a capillary space.~~

~~105. (Presently amended) The kit of claim 28, wherein the label is attached to a first member of a binding pair that binds to a second member of the binding pair that is bound to said at least one [discrete] timing zone of said at least one diagnostic lane.~~

~~106. (Previously presented) The kit of claim 105, wherein one or both of said first and second members of the binding pair is an antibody.~~

~~107. (Previously presented) The kit of claim 28, wherein said signal processor determines the progress and time of completion of said assay in said device from the rate of change of the amount of signal.~~

~~108. (Previously presented) The kit of claim 28, wherein said signal processor determines the progress and time of completion of said assay in said device from the absolute amount of signal.~~

~~109. (New) The apparatus of claim 27, wherein said at least one assay zone and said at least one timing zone are located in the same diagnostic lane.~~

~~110. (New) The apparatus of claim 27, wherein said at least one assay zone and said at least one timing zone are located in a separate diagnostic lane.~~

~~111. (New) The apparatus of claim 27, wherein a surface of said at least one timing zone is configured to bind said detectable label.~~

~~112. (New) The apparatus of claim 27, wherein said at least one assay zone does not appreciably bind said detectable label.~~

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113. (New) An apparatus for measuring progress and time of completion of an assay for an analyte, comprising:

(a) an assay device comprising:

(i) a reaction chamber, and

(ii) at least one diagnostic lane comprising at least one assay zone configured to bind said analyte and at least one timing zone separate from the assay zone, wherein said diagnostic lane is in fluid communication with said reaction chamber, and wherein, when fluid and a detectable label are added to said reaction chamber, said detectable label flows with said fluid to said at least one diagnostic lane;

(b) an optical component for detecting an optical signal generated from said label in said at least one timing zone and generating an electronic signal in response; and

(c) a signal processor configured to receive said electronic signal and to determine said progress and time of completion of said assay for said analyte in said assay device from at least one parameter selected from the group consisting of a rate of change of the amount of said electronic signal and an amount of said electronic signal.

114. (New) The apparatus of claim 113, wherein said apparatus further comprises said detectable label.

115. (New) The apparatus of claim 114, wherein said label is selected from the group of molecules consisting of dye, fluorescence emitting dye, chemiluminescence emitting dye, infrared emitting dye, colloidal sol, molecule that generates an electrical and/or magnetic signal, and enzyme.

116. (New) The apparatus of claim 113, wherein the assay device is an immunoassay device.

117. (New) The apparatus of claim 113, wherein the optical component is a fluorometer.

118. (New) The apparatus of claim 113, wherein the reaction chamber and said at least one diagnostic lane are each within a capillary space.

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119. (New) The apparatus of claim 113, wherein the label is attached to a first member of a binding pair that binds to a second member of the binding pair that is bound to said at least one timing zone of said at least one diagnostic lane.
120. (New) The apparatus of claim 119, wherein one or both of said first and second members of the binding pair is an antibody.
121. (New) The apparatus of claim 113, wherein said signal processor determines the progress and time of completion of said assay in said device from the rate of change of the amount of signal.
122. (New) The apparatus of claim 113, wherein said signal processor determines the progress and time of completion of said assay in said device from the absolute amount of signal.
123. (New) The apparatus of claim 113, wherein said at least one assay zone and said at least one timing zone are located in the same diagnostic lane.
124. (New) The apparatus of claim 113, wherein said at least one assay zone and said at least one timing zone are located in a separate diagnostic lane.
125. (New) The apparatus of claim 113, wherein a surface of said at least one timing zone is configured to bind said detectable label.
126. (New) The apparatus of claim 113, wherein said at least one assay zone does not appreciably bind said detectable label.
127. (New) A kit for measuring progress and time of completion of an assay for an analyte, comprising:
- (a) at least one set of instructions for measuring said progress and time of completion; and
  - (b) an apparatus according to claim 113.
128. (New) A kit for measuring progress and time of completion of an assay for an analyte, comprising:

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- (a) at least one set of instructions for measuring said progress and time of completion; and
  - (b) an apparatus according to claim 114.
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